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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,010	11/16/2005	Karl-Heinz Danger	HOEF-37546	8903

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EXAMINER	
LEWIS, RALPH A	

ART UNIT	PAPER NUMBER
3732	

MAIL DATE	DELIVERY MODE
05/16/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/528,010	DANGER ET AL.	
	Examiner	Art Unit	
	Ralph A. Lewis	3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 February 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *26-45,47,48 and 51-63* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *26-45, 47, 48 and 51-63* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Rejections based on Prior Art

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 26-28, 30-36, 42-45, 49 and 51-55 are rejected under 35 U.S.C. 102(b) as being anticipated by Iio et al (US 5,725,932).

Iio et al discloses ceramic substrate that is used for coating metal machining tools, mills and drills (note column 1, lines 9-15) that provides for a hardened surface having a surface roughness of between 2 μm and 20 μm (note abstract) and more preferably of between 1 μm and 5 μm (note column 3, line 14). In regard to claim 28, column 6, line 53). In regard to claims 30-33, applicant has amended the specification to explain that the "core reinforcement" can simply be considered the internal structure/mass of drill bit and that the conical basic shape is simply an "imaginary" shape defined within the internal structure/mass of the drill bit. It is noted that such fanciful and strained interpretations can also be made of the prior art. In regard to claim 34, the hardened coating of Iio et al having micron sized roughness is deemed to meet the vague "microhardening" limitation. In regard to claims 35 and 45, the manner in which applicant intends for the device to be made fails to impose any objectively ascertainable structural distinctions from the Iio et al invention. In regard to claim 42,

note column 7, lines 35-47. In regard to claim 51, the intended dental use of the claimed cutting tool fails to impose any objectively ascertainable structural distinctions from the tools disclosed by Iio et al.

In response to the present rejection, applicant asserts that Iio et al fails to disclose the claimed "at least one cutting edge and/or toothing" and argues that it is the diamond particles in the coated diamond surface of the ceramic tool of Iio et al that perform a cutting function. The examiner disagrees, Iio et al clearly state that the hardened ceramic coating is for use on cutting tools such as drills (column 1, line13) which inherently have cutting edges. The ceramic coating with diamond particles is for providing hardness and improved resistance to wear, not as an abrasive applied to an outer surface of a burr as asserted by applicant. Moreover, applicant's attention is directed to column 6, line 54 as well as Figures 14-16 discussing the cutting edges of the ceramic coated tools. Finally, applicant asserts that the present claims were considered as being distinguished over Japanesse Publication Number 05309102, it is noted that the examiner doesn't necessarily agree with such a characterization, as an English translation of the publication was never secured. The presently applied Iio et al, was simply deemed to be a better reference than the English abstract relied upon for the '102 publication.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 26-45, 47, 48 and 51-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iio et al (US 5,725,932) in view of Kumar (US 2002/0028422).

Kumar teaches that it is desirable to provide hardened coatings on dental burrs having cutting edges in order to improve their resistance to wear and to provide such dental tools with depth marks 44 in order to aid the dentist in determining the depth of the cut. To have coated dental burrs in order to improve their wear with the Iio et al hardened coating for tool bits and provided such tools with markings so that the dentist could determine the depth of penetration as is taught by Kumar would have been obvious to one of ordinary skill in the art.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication should be directed to **Ralph Lewis** at telephone number **(571) 272-4712.** Fax (571) 273-8300. The examiner works a compressed work schedule and is unavailable every other Friday. The examiner's supervisor, Cris Rodriguez, can be reached at (571) 272-4964.

R.Lewis
May 11, 2008

/Ralph A. Lewis/
Primary Examiner, Art Unit 3732